

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/057983 A1

(51) International Patent Classification⁷: **H04R 25/00,**
A61F 11/04

(74) Agent: **FREEHILLS PATENT & TRADE MARK AT-**
TORNEYS; Level 43, 101 Collins Street, Melbourne, Vic-
toria 3000 (AU).

(21) International Application Number:
PCT/AU2004/001729

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(22) International Filing Date: 8 December 2004 (08.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003906846 10 December 2003 (10.12.2003) AU

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **THE
BIONIC EAR INSTITUTE** [AU/AU]; 384-388 Albert
Street, East Melbourne, Victoria 3002 (AU).

(72) Inventors; and

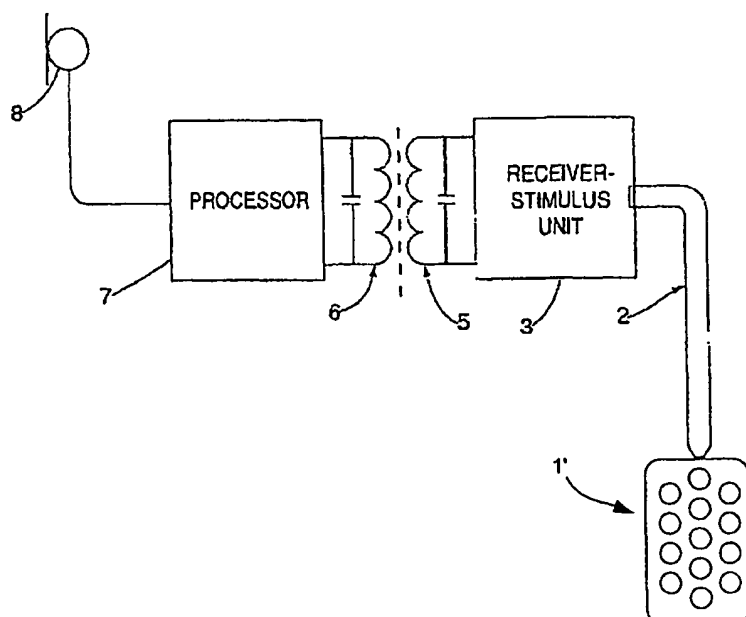
(75) Inventors/Applicants (*for US only*): **PAOLINI, Antonio,**
Giacomo [AU/AU]; 30 Cuthbert Street, Bulleen, Victoria
3105 (AU). **GRAYDEN, David, Bruce** [AU/AU]; 16 Dres-
den Avenue, Heathmont, Victoria 3135 (AU).

Published:

— with international search report

[Continued on next page]

(54) Title: DELAYED STIMULATION IN AUDITORY PROSTHESES



(57) Abstract: A method generating electrical stimuli by an auditory prosthesis (1;1') including an array of stimulation devices in response to an incoming acoustic signal, the method including determining stimulation devices to be activated within the array and activation times for those electrodes; and applying a temporal adjustment (12) to the activation times such that activation of electrodes representing lower-amplitude components of the signal is delayed relative to activation of a proximate device representing a higher-amplitude component of the signal.

WO 2005/057983 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.